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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/758,412 | 01/14/2004 | Sun-Ho Hwang | 678-1148 (P10789) | 6104 |
| 28249 7590 02/27/2007 DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. SUITE 702 UNIONDALE, NY 11553 | | | EXAMINER RAMAKRISHNAIAH, MELUR | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2614 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 02/27/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/758,412

Applicant(s)

HWANG, SUN-HO

Examiner

Melur Ramakrishnaiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12-11-2006 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guilford et al. (US 2002/0087674A1, hereinafter Guilford) in view of Trompower et al. (US PAT: 6,138,019, hereinafter Trompower).

Regarding claim 1, Guilford discloses a mobile station for registering its location in a base station based on public land mobile network information included in system information which the base station transmits, the public land mobile network information including country and network identification codes, the mobile station comprising: a memory in (12, fig. 2) for storing a roaming land mobile network table (fig. 4) which has home public land mobile network information and information for public land mobile network of a mobile network of a mobile communication business proprietor which

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supports a roaming function into a public land mobile network of a mobile network of a mobile communication business proprietor and home public land mobile network, and a controller in (52, fig. 2) for determining whether the acquired public land mobile network information exists in the roaming public land mobile network table stored in the memory using a frequency having a maximum receiving signal strength when international roaming occurs (this reads on roaming into other than home network), registering the mobile station in a base station using acquired public land mobile network information when the acquired public land mobile network table, acquiring new public land mobile network information using frequencies having a receiving strength less than the maximum receiving strength when the acquired public land mobile network information does not exist in the roaming public land mobile network and determining whether the newly acquired public land mobile network information exists in the roaming public land mobile network table (paragraphs: 0053-0055; 0066-0069; figs. 2-4; 7a).

Guilford differs from claimed invention in that he does not specifically teach: roaming time is reduced by selectively registering a Public Land Mobile Network (PLMN) location only in a base station with a roaming function.

However, Trompower teaches an arrangement for selectively registering with base stations which support roaming to reduce roaming time (col. 17 lines 37-53).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Guilford's system to provide for the following: roaming time is reduced by selectively registering a Public Land Mobile Network (PLMN) location only in a base station with a roaming function as this arrangement would facilitate

selecting base stations for roaming which results in reduction of roaming time as taught by Trompower.

Regarding claims 3, 5, Guilford further teaches the following: the roaming public land mobile network table is obtained by tabling public land mobile network information for a roaming mobile communication business proprietor with respect to a plurality of home public land mobile network information, and when determining whether the acquired public land mobile network information exists in the roaming public land mobile network table, the controller reads the home public land mobile network information from the memory in (12, fig. 2), and compares the read home public land mobile network information with roaming public land mobile network information corresponding to home public land mobile network information, base station (52, fig. 2) transmits the home land public land mobile network information and the roaming public land mobile network information to the mobile station by short service cell broadcast and the controller in (52, fig. 2) updates the roaming public land mobile network table stored in the memory based on the short service cell broadcast provided from a base station of one of the home mobile communication business proprietor and another mobile communication business proprietor (paragraphs: 0053-0055; 0066-0069; figs. 2-4; 7a).

4. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guilford in view of De Beer (US 2005/0101323 A1, filed 2-14-2002) and Trompower.

Regarding claim 6, Guilford teaches the following: storing a roaming public land mobile network table in memory (fig. 4), roaming public land mobile network including the home public land mobile network information and a plurality of public land mobile

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network information, acquiring public land mobile network information using a frequency having a maximum receiving strength when the power of the mobile station (fig. 7a) is turned on, determining whether the acquired public land mobile network information exists in the roaming public land mobile network table stored in the memory when the roaming occurs, and registering the mobile station in the base station (52, fig. 2) when the acquired public land mobile network information exists in the roaming public land mobile network table stored in the memory, acquiring new public land mobile network information using frequencies having receiving strength less than the maximum receiving strength when the acquired public land mobile network information does not exist in the roaming public land mobile network table and comparing the newly acquired public land mobile network information with the roaming public land mobile network table (fig. 7, paragraphs: 0066 – 0074).

Guilford differs from claims 6-7 in that he does not teach the following: determining whether international roaming occurs, comparing the acquired public land mobile network information with a country code of a final usage of the public land mobile network information; roaming time is reduced by selectively registering a Public Land Mobile Network (PLMN) location only in a base station with a roaming function.

However, De Beer teaches the following: determining whether international roaming occurs, comparing the acquired public land mobile network information with a country code of a final usage of the public land mobile network information (fig. 7, paragraphs: 0066 – 0074); However, Trompower teaches an arrangement for

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selectively registering with base stations which support roaming to reduce roaming time (col. 17 lines 37-53).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Guilford's system to provide for the following: determining whether international roaming occurs, comparing the acquired public land mobile network information with a country code of a final usage of the public land mobile network information as this arrangement would provide means for determining most preferred network for communicating when user is roaming across the networks as taught by De Beer; roaming time is reduced by selectively registering a Public Land Mobile Network (PLMN) location only in a base station with a roaming function as this arrangement would facilitate selecting base stations for roaming which results in reduction of roaming time as taught by Trompower.

Regarding claims 8-9, Guilford further teaches the following: public land mobile network table is obtained by tabling public land mobile network information for a mobile communication business partner which supports roaming function with respect to a plurality of public land mobile network information, and reading the home public land mobile network information from the memory and comparing, the acquired public land mobile network information with roaming public land mobile network information corresponding to the read home public land mobile network information, receiving new public land mobile network information from the base station through short service cell broadcast, and updating the roaming public land mobile network information to the roaming public land mobile network table (fig. 7, paragraphs: 0066 – 0074).

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5. Claims 2, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guilford in view of Trompower as applied to claim 1 above, and further in view of De Beer.

Regarding claims 2, 4, the combination teaches the following: memory stores final usage public land mobile network information, and controller extracts land mobile network information from the acquired system information using the frequency having a maximum receiving strength when the power of the mobile station is turned on, and determines roaming occurs (paragraphs: 0053-0055; 0066-0069; figs. 2-4; 7a of Guilford); but it does not teach the following: comparing the country code of the extracted land mobile information with country code of the extracted land mobile information with a country code of the usage public land mobile network information, and determine international roaming occurs, controller registers the mobile station in a final usage public land mobile network when the country code of the extracted public land mobile network is identical with the country code of the final usage of the public land mobile network information.

However, De Beer discloses network selection in a mobile telecommunication system which teaches the following: comparing the country code of the extracted land mobile information with country code of the extracted land mobile information with a country code of the usage public land mobile network information, and determine international roaming occurs, controller registers the mobile station in a final usage public land mobile network when the country code of the extracted public land mobile

network is identical with the country code of the final usage of the public land mobile network information (fig. 7, paragraphs: 0066 – 0074).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: comparing the country code of the extracted land mobile information with country code of the extracted land mobile information with a country code of the usage public land mobile network information, and determine international roaming occurs, controller registers the mobile station in a final usage public land mobile network when the country code of the extracted public land mobile network is identical with the country code of the final usage of the public land mobile network information as this arrangement would provide means for determining most preferred network for communicating when user is roaming across the networks as taught by De Beer.

Response to Arguments

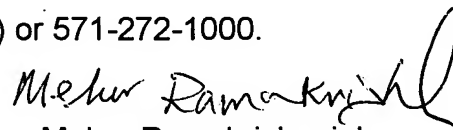
6. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Melur Ramakrishnaiah
Primary Examiner
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